DIAGNOSIS OF PSYCHIATRIC DISORDERS, AND THE MENTAL STATUS EXAMINATION

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Key Concepts:

Students will understand the system used in psychiatry for diagnostic procedure and classification (DSM) and the predominant model of explaining psychiatric phenomena (biopsychosocial formulation). Students will understand the nature and multiple goals of the psychiatric interview, including methods of interviewing, the expected content of the psychiatric assessment, and the manner of conducting and identifying the mental status examination.

Learning Objectives:

1. Describe how to diagnose psychiatric disorders, including conducting a psychiatric interview and mental status examination, generating a differential diagnosis, considering medical and substance-related etiologies, and using diagnostic criteria to make specific diagnoses.
2. Define cognition, emotion, and behavior.
3. Explain the biological, psychological, cultural and social contributions to psychiatric illness, as described by the biopsychosocial model.
4. Identify the multiple purposes of a psychiatric interview, including establishing a relationship, gathering clinical information, attempting to understand a patient, and developing a diagnosis, formulation, and treatment plan.
5. List the elements of the mental status examination.
6. Recognize specific abnormalities of the mental status examination and their associated psychiatric diagnoses.

I. Background

Mental illnesses are disorders that affect cognition, emotion, quality of life, relationships, and functioning. Mental illnesses are common, with a lifetime prevalence of approximately 50% in the U.S., and may be severe and disabling. Four of the ten most disabling disorders in the world are mental illnesses: major depressive disorder, alcohol abuse/dependence, bipolar disorder and schizophrenia. Psychiatric disorders often arise early in life, disrupting a person's education, capacity for meaningful work, and ability to build and sustain relationships.

Mental illness is associated with increased mortality: the median of potential life lost is 10 years. Suicide, the most devastating consequence of mental illness, is the most common cause of violent death worldwide (49%), eclipsing both homicide (31%) and war (19%). It has been estimated that 14.3% of all deaths worldwide are attributable to mental illness.

Fortunately, these disorders are often amenable to treatment, including psychotherapy and psychotropic medications. Psychiatric diagnoses help to predict the outcome of disorders, are used to decide on appropriate treatments, facilitate communication among clinicians, and assist in the search for pathophysiology and etiology. Thus, it is imperative that psychiatric disorders be accurately diagnosed.

Clinicians face two fundamental challenges: (a) determining whether or not a psychiatric disorder is present, and, if so, (b) determining which psychiatric disorder(s) is (are) present. Because valid and reliable biological markers have not yet been found for the majority of psychiatric disorders, diagnosis is made via clinical criteria, as defined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). A broader understanding of the patient's illness is developed through a process called **biopsychosocial formulation**. The psychiatric interview, which includes conducting a **mental status examination**, is the instrument used to make a psychiatric diagnosis and to develop a biopsychosocial formulation.

II. Cognition, Emotion, and Behavior

Mental function includes the intertwined concepts of cognition, emotion and behavior. Cognition, emotion, and behavior consist of internal, subjective experiences and external, observable manifestations.

Cognition refers to processes such as:

- memory
- attention
- language comprehension and production
- sensory perception
- executive function (impulse control, sequencing, planning, and decision-making).

Disorders of cognition include dementia and delirium, though many psychiatric disorders can adversely affect cognition.

Emotions are complex feeling states with psychological, somatic, and behavioral components that function to guide adaptive behavioral responses and decision-making. From an evolutionary perspective, emotions likely arose to allow for rapid, complex, and organized responses to environmental stimuli. For example, a mammal confronted with a predator does not have time for a complex cognitive assessment of the situation and its possible responses. The emotion of fear almost immediately results in a coordinated response of heightened alertness, selective attention to the predator, increased heart rate, release of norepinephrine, epinephrine, and cortisol, and freeze or flight behavior. A mammal without basic emotional responses such as fear would be unable to survive.

While emotions are a critical part of the normal human experience and are essential for survival and effective social behaviors, extremes (e.g., excessive worry disproportionate to a situation) are characteristic of many psychiatric disorders. Disorders of emotion include mood disorders (e.g., major depressive disorder, bipolar disorder) and anxiety disorders (e.g., post-traumatic stress disorder), though almost all psychiatric disorders have strong emotional components.

Behaviors arise from the interplay of motivations, cognitive processes and emotional state. Psychiatric disorders are often disabling because the cognitive and emotional symptoms interfere with adaptive behaviors. For example, a person with schizophrenia may not be able to successfully interview for a job because of loud, disruptive auditory hallucinations ("hearing voices").

All psychiatric disorders are defined by their symptoms (changes in cognition, emotion and behavior) and the resulting abnormalities in function.

III. Classification of Psychiatric Disorders

A. Diagnostic Criteria

Astute observers have identified the existence of mental illness for over 2500 years. Terms such as *mania* and *melancholia* (severe depression) date back to pre-Hippocratic times. Hippocrates (460-370 BCE) and his students described conditions that we would easily recognize: acute mental status changes and fever (delirium); chronic, afebrile illness of fear and sadness (depression); rigors and confusion after drinking alcohol (delirium tremens).

Yet, a valid and reliable diagnostic system has proved elusive. A significant advance took place with the 1980 publication of third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), which defined psychiatric disorders in terms of diagnostic criteria, specifically a combination of psychiatric symptoms and functional impairment. The current edition (DSM-5) uses the same approach.

The diagnostic criteria for **major depressive episode** (Table 1) are illustrative. To be diagnosed with a major depressive episode, a patient must demonstrate some combination of symptoms for two weeks or more, must have functional impairment due to the symptoms, and must not meet criteria for another condition. Essentially all diagnoses in DSM follow this model.

B. DSM and the Etiology of Mental Illness

The DSM is generally atheoretical: in other words, for most diagnoses, there is no explicit mention of possible etiologies. As our knowledge of the pathophysiology of mental illness advances, future iterations of the DSM will include biological markers as well as clinical symptoms. Though it may appear that there is a distinction between mental illness and physical illness, it is abundantly clear that the substrate of mental illness is the brain. Psychiatric disorders have bidirectional relationships with neurological disorders, cardiac disease, and endocrine disorders. Various substances have psychotropic properties. Behavioral interventions have been show to result in changes in brain metabolism.

C. Psychiatric Diagnoses and Stigma

The DSM diagnoses disorders, not people. Rather than referring to a "schizophrenic" or an "alcoholic," we instead use phrases such as, "an individual with schizophrenia" or "an individual with alcohol dependence." This is an important issue in reducing stigma.

Table 1. Example of DSM Criteria: Criteria for Major Depressive Episode

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
   Note: Do not include symptoms that are clearly due to another medical condition.
   1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, or hopeless) or observation made by others (e.g., appears tearful). (**Note:** In children and adolescents, can be irritable mood.)
   2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
   3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (**Note:** In children, consider failure to make expected weight gain.)
   4. Insomnia or hypersomnia nearly every day
   5. Psychomotor agitation or retardation nearly every day (observable by others; not merely subjective feelings of restlessness or being slowed down).
   6. Fatigue or loss of energy nearly every day.
   7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
   8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
   9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The episode is not attributable to the physiological effects of a substance or another medical condition.

D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.

E. There has never been a manic episode or a hypomanic episode.

http://dsm.psychiatryonline.org.ezproxy.library.wisc.edu/book.aspx?bookid=556 from the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition, Text Revision (copyright ©2013) American Psychiatric Association.

D. Categories of Psychiatric Diagnoses

In this course, we are going to cover these diagnostic categories of mental illness:

- depressive disorders
- psychotic disorders
- bipolar disorders
- anxiety disorders
- obsessive-compulsive disorders
- trauma-related disorders
- substance use disorders

- personality disorders
- eating disorders
- neurodevelopmental disorders, including autism spectrum disorder and attention-deficit/hyperactivity disorder
- sleep-wake disorders
- somatic symptom disorders
- neurocognitive disorders, including delirium and dementia

III. The Psychiatric Interview

The psychiatric interview is the instrument clinicians use to make a psychiatric diagnosis, to develop a biopsychosocial formulation, and to inform a treatment plan. Other key purposes of the psychiatric interview are to develop and maintain a therapeutic relationship with the patient and to determine the risk of unwanted outcomes such as suicide. The written psychiatric evaluation is the documentation of the psychiatric interview. In this section, we review the elements of the psychiatric interview and its documentation.

A. Identification of the Patient and Chief Complaint

This includes the patient's name, age, gender, relationship status, and occupational status. You may find this information in the patient's medical record or you may ask the patient directly. The chief complaint is a brief statement, in the patient's own words, about why (s)he is being evaluated. These may be recorded as follows:

> *Identification and chief complaint: Mr. Smith is a 35-year old married man currently employed as a postal worker. He reports, "I've been feeling very low for the last few months."*

This section also includes the sources of information and how reliable the sources appeared to be, e.g.,

- *the patient, who appears to be a reliable historian;*
- *the patient's wife, who was present for part of the interview;*
- *review of the patient's medical record.*

B. History of Present Illness

The psychiatric history of present illness (HPI) is a concise and chronological history of the development of current symptoms from the time of onset to the present. Begin with open-ended questions and move to specific questions about the onset, duration, severity, and intensity of symptoms. The HPI also includes a description of stressors and support systems, as well as what treatment has been sought so far and what the response to treatment has been.

Obtaining a thorough HPI requires knowledge of the diagnostic criteria of the most prevalent psychiatric disorders, including major depressive episode, hypomanic and manic episode, schizophrenia, generalized anxiety disorder, panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, dementia, and substance use disorders. The HPI includes asking for

"pertinent negatives": that is, if the patient presents with depressive symptoms, you also have to ask about anxiety, manic, and psychotic symptoms.

C. Past Psychiatric, Medical, and Surgical History
Making an accurate psychiatric diagnosis depends on collecting an accurate account of prior psychiatric symptoms. This is often difficult because the patient's mental state may preclude obtaining a detailed history, for example, if the patient has dementia or delirium. Thus, obtaining additional history from the patient's medical record and from the patient's family members (with the patient's permission) is essential.

Elements of the past psychiatric history include:

- prior psychiatric diagnoses, including who diagnosed them and how
- past medication trials, including treatment response and side effects
- suicide attempts, including when, nature of the attempt, and the outcome
- psychiatric hospitalizations, including when and for what specific problem
- history of psychotherapeutic treatments, including individual, couples, and group therapy
- history of other treatments, such as electroconvulsive therapy

Given the comorbidity of psychiatric and medical conditions, it is critical that you review the patient's current medical problems and medical-surgical history. For women of child-bearing age, ask about sexual activity, the use of contraception, and the possibility of pregnancy; this is important, given the relationship between psychiatric disorders and pregnancy, and the risks of psychotropic medications in pregnancy.

D. Family History
Many psychiatric disorders have significant genetic components. Therefore, you need to ask your patients about any family history of mood disorders, anxiety disorders, substance use disorders, suicide attempts or completed suicides, psychotic disorders, and dementia. Obtain a psychotropic medication history of family members because psychotropic medications effective for family members may be effective for the patient, too.

E. Social History and Habits
In collecting a social history, you gain an understanding of the patient's current psychosocial situation, the patient's developmental history, and the patient's history of use of psychoactive substances.

1. Psychosocial Situation
Ask the patient about her or his employment, educational background (highest level of schooling), relationship status, sexual orientation, spiritual beliefs, housing, and any legal or financial difficulties. Ask about support systems; this is especially important as part of the assessment of suicidality (see below). You should get an idea of the patient's daily life, including ability to complete **activities of daily living,** such as making meals, driving, managing finances, keeping house, and taking care of oneself.

2. Developmental History
You may begin by asking, "Can you tell me about your upbringing?" This includes where the patient was born and raised, who was in her/his household when growing up, religious and cultural background, the presence of any adverse events during childhood and adolescence (e.g., parents divorced, death of a relative, physical or sexual abuse), any social or behavioral problems during school, educational attainment, relationship history, occupational history, and any military history. In your written evaluation, this will be a chronological narrative of the patient's history. You can learn quite a bit about your patient and her view of herself and the world in just a few minutes.

3. Habits
This section includes the use of any psychoactive or addictive substances, including tobacco, alcohol, cannabis, opiates, stimulants (cocaine, amphetamines), sedative-hypnotics, and hallucinogens. For each, inquire about current or past use; amount of use per unit time (per day or week); social, occupational, legal and medical consequences of use; any history of withdrawal symptoms (especially alcohol withdrawal syndrome). Ask about treatment for substance use disorders, including outcomes. If the patient appears to have a substance use disorder, ask about interest in quitting.

F. Mental Status Examination, Physical Examination, and Neurological Examination
See the next section for details of the mental status examination. Patients presenting with psychiatric symptoms require a physical examination, with particular attention paid to the neurological examination. This examination may help identify an etiology of psychiatric symptoms, consequences of psychiatric disorders, and side effects of psychotropic medications.

IV. The Mental Status Examination

The mental status examination (MSE) combines the patient's report of current cognitions and emotions with the clinician's observation of the patient's behavior. It serves as a snapshot of the patient's current mental state, and is a tool for communication among clinicians. The MSE is not separate from the rest of the psychiatric interview, but is collected over the course of the interview.

A. Appearance
You collect this information by carefully observing the patient. Describe the patient's general appearance, including **grooming** and **hygiene** (e.g., neat, unkempt, disheveled), **dress** (appropriateness of clothing for environment, cleanliness), **posture** (e.g., stooped), and **facial expression**. Report whether the patient appears her or his stated age, or younger or older. Note stigmata of physical illness, for example, "track marks" on arms (possible evidence of intravenous drug use), pinpoint pupils (perhaps due to opiate intoxication), spider angiomata (associated with hepatic disease due to chronic alcohol use), or masked facies (perhaps due to parkinsonism). Note evidence of self-harm, e.g., lacerations on forearms.

Poor grooming and hygiene could be due to poor self-care associated with a depressive disorder, a psychotic disorder, or dementia. A patient with hypomania or mania may wear provocative clothing or excessive or garish make-up. A patient with schizophrenia may, due to disorganized

behavior, wear odd or inappropriate clothing, e.g., multiple layers of clothes in warm weather or too little clothing in cold weather or no clothing in any weather. A patient may appear older than stated age due to the effects of chronic mental illness, long-standing substance use disorders, or chronic medical illness.

B. Behavior
In this section, describe the motor behavior of the patient, including **psychomotor agitation** (restlessness) or **psychomotor retardation** (motor slowing), any **abnormal involuntary movements** (see below for list), **gait** (e.g., shuffling), **gaze** (e.g., intense stare or eyes downcast), and **attitude** towards examination (cooperative, indifferent, suspicious/guarded, sarcastic, or hostile).

Abnormal involuntary movements may be evidence of a neurological disorder (e.g., Parkinson's disease), medication side effects (e.g., parkinsonism due to antipsychotic medications, tremor due to lithium), or severe psychiatric states (e.g., waxy flexibility due to catatonia). Specifically:

- **tremor**: resting or intentional, coarse or fine, high or low frequency, location in body, symmetrical or asymmetrical
- **tic**: sudden, jerking movement or vocalization
- **dyskinesia**: slower, writhing movements of lips, tongue, jaw, or trunk
- **rigidity**: often visible, but also be elicited by "checking for cogwheel rigidity": the examiner extends and flexes each arm at the elbow – normally, the movement is smooth, but "ratcheting" is present in cogwheel rigidity
- **odd behaviors**: waxy flexibility (the patient is awake, not normally responsive, and maintains postures into which (s)he has been placed), posturing (assuming an inappropriate or bizarre posture), and stereotypy (purposeless, repetitive movements)

A patient with a depressive disorder typically has psychomotor retardation and poor eye contact, and may be tearful. A patient with hypomania or mania has psychomotor agitation and, sometimes, intense eye contact. A patient with an anxiety disorder may be restless and panicky, may appear startled, and may have shifting eye movements. A patient with catatonia (a severe manifestation of a mood or psychotic disorder) can be rigid and exhibit waxy flexibility and posturing.

C. Speech
Describe the **rate** (e.g., normal, slow, rapid or pressured), **rhythm** (e.g., normal, stammering, or monotonous), and **volume** (e.g., normal, quiet, or loud) of the patient's speech. This section includes abnormalities of speech production such as dysarthria and aphasia.

A cardinal symptom of mania is speech that is **pressured**, that is, the patient speaks rapidly and is difficult to interrupt. On the other hand, a patient with depression often speaks slowly, softly, and monotonously; speech may be **latent**, that is, there is a delay in answering your questions. A patient with severe depression, psychosis, or dementia can be mute. Rarer abnormalities (usually seen in psychotic disorders or mania) include echolalia (repeating what you are saying), clang associations (rhyming speech, e.g., "I went to the store, walked through the door, what am I here for?").

Because speech is typically the way we determine a patient's thought processes, there can be some confusion with that category. However, this section describes the physical characteristics of speech while the thought processes section describes the flow of thought (see below).

D. Mood and Affect

Being able to elicit and report a patient's mood and affect are critical skills for students learning how to conduct the mental status examination. **Mood** refers to the subjective experience of an emotion (e.g., "I feel happy"), while **affect** refers to the outward manifestation of that emotion (e.g., a smile). In other words, the patient describes to you her/his mood, while you describe her/his affect based on your observations.

To elicit mood, you can ask the patient one of these questions:

- How do you feel?
- How are your spirits?
- How would you describe your mood recently?

Some patients have difficulty describing their mood, which is referred to as **alexithymia**. So, you may need to prompt the patient (carefully, so as not to lead the patient):

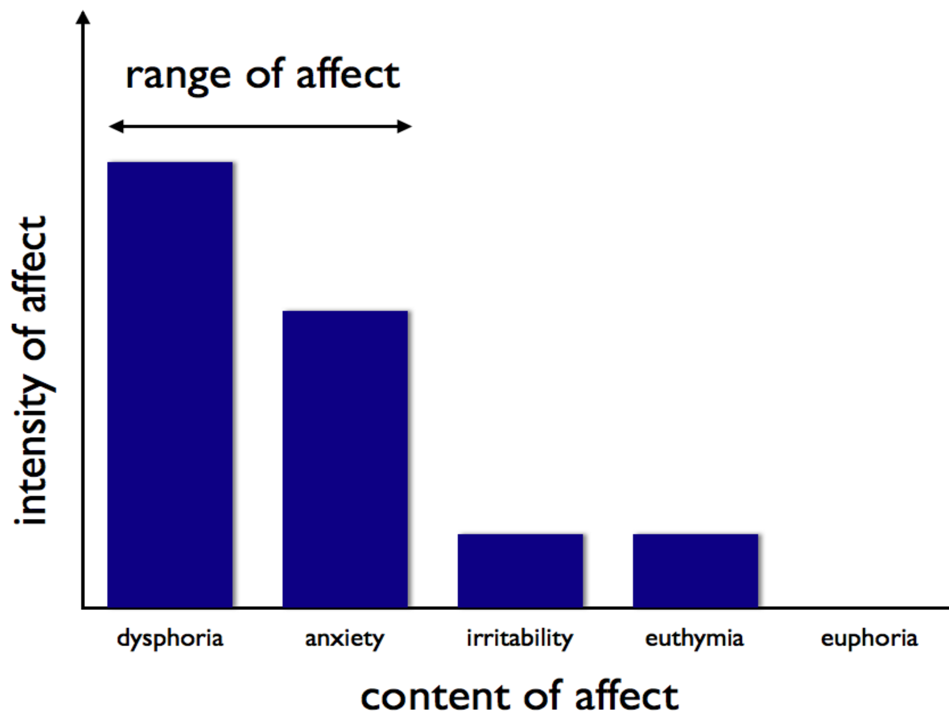
- Have you been feeling sad or down?
- Have you been feeling scared, nervous, or worried?
- Have you been feeling angry, irritated, or easily upset?
- Have you been feeling very happy or high?

These questions cover the emotional states of depression, anxiety, anger, and elation/euphoria. A neutral emotional state can be described as calm or collected. Please note that most of us feel multiple emotions over a span of time – the point here is to elicit the predominant mood. Mood is placed in quotes to indicate that the patient reported it herself or himself.

To assess a patient's affect, begin with careful observation of motor activity, eye contact, grooming, and speech (as described above). A description of affect (Figure 1) includes:

- **content:** dysphoric, apathetic, anxious, irritable/angry, elated/euphoric, or euthymic
- **congruence:** does the affect match the patient's stated mood? (For example, a patient who consistently laughs while describing tragic events has **inappropriate affect** or affect that is **incongruent** with mood.)
- **range: full** (ranging from sad to anxious to irritable), **restricted** (displaying only one or two emotions), or **flat** (showing almost no emotional response)
- **intensity: blunted** (e.g., crying softly) or **intense** (e.g., sobbing loudly)
- **consistency:** a **labile** affect is one that shifts suddenly and perhaps unexpectedly over several seconds

Figure 1. Graphical representation of affect in a patient with a restricted, dysphoric, and anxious affect



E. Thought Processes

Many psychiatric disorders have profound effects on thought processes. For example, a cardinal sign of schizophrenia is **thought disorganization**. You infer thought by paying attention to a patient's speech, including how the patient responds to your questions, how logical her thoughts are, and the flow and sequencing of ideas. There can be some confusion with the speech portion of the MSE (see above), though that section should be reserved for a description of the physical qualities of speech, that is, rate, rhythm, and volume.

Normal thought processes are logical (thoughts are linked to each other in a way that makes sense), linear (thoughts proceed in order), and goal-oriented (thoughts have a point, for example, answering an examiner's question). Abnormal thought processes include:

- **tangentiality**: The patient replies to question in an oblique way that progressively moves further and further away from the question (thought processes are **tangential**).
- **circumstantiality**: The patient's responses are indirect and delayed in reaching the goal, though she eventually gets there (thought processes are **circumstantial**).
- **loosening of associations**: The links between patient's thoughts are not clear ("tight") or logical and the patient appears to get "derailed" easily. Severe forms include:
    - **flight of ideas**: loosened associations that are accompanied by pressured speech (most often seen in patients with mania)
    - **thought blocking**: a sudden disruption of thought processes, often midstream (most often seen in patients with psychosis)
- **perseveration**: The patient repeats particular phrases or questions (may be evidence of dementia or psychosis).

- **thought poverty**: The patient has little or no spontaneous speech and/or responds to questions tersely, e.g., says only "yes" or "no" (this may be evidence of severe depression, psychosis or dementia).

F. Thought Content

Ascertaining thought content requires a sensitive approach, given that these topics can be difficult for a patient to discuss, or even stigmatizing. Yet, these questions must not be avoided since they are critical to determining the presence or absence of a mood disorder or psychotic disorder and to determining the risk that a patient may harm herself or others.

1. Suicidal Ideation

Suicide is the most devastating consequence of mental illness. Thus, all patients must be carefully assessed for the presence of suicidal ideation. **Passive suicidal ideation (SI)** is the belief that life is not worth living or the wish that (s)he would be dead. **Active suicidal ideation** includes an intent to harm oneself and/or a plan for doing so and/or access to the means of self-harm. The presence of one or more of these elements is associated with a higher risk of self-harm; from lowest to highest risk:

1. no SI
2. passive SI
3. active SI, with intent to harm self
4. active SI, with intent and plan to harm self
5. active SI, with intent, plan and means to harm self

Ask the following questions:

1. Do you ever feel like life is not worth living or that you'd be better off dead? (screen for passive SI) – if yes, then …
2. Do you want to harm yourself in any way? (screen for intent) – if yes, then …
3. How would you hurt yourself? (screen for plans, and ask specifics, e.g., use of gun, overdose of pills, cutting, hanging) – if yes, then …
4. Do you have access to [gun, pills, knife, etc.]?

Positive responses to any of questions 2-4 are psychiatric emergencies and require immediate intervention to prevent suicide.

Questions about suicidal ideation are usually coupled with questions about prior suicide attempts and family history of suicide, both powerful risk factors for suicide. Asking about support systems (e.g., family, friends, members of a religious community), is important, as these may help reduce the risk of suicide. Further, the treatment plan may involve members of the support system, e.g., the patient may stay with a family member during a crisis.

While SI is usually associated with major depressive disorder, patients with bipolar disorder, psychotic disorders, personality disorders, anxiety disorders, and substance use disorders may also express SI and be at elevated risk of suicide.

2. Homicidal Ideation
Ask the patient if (s)he is thinking of harming anyone else and, if so, whom and how. Homicidal ideation is a psychiatric emergency that also has legal implications.

3. Hallucinations
Hallucinations are sensory perceptions in the absence of associated environmental stimuli. In contrast, an **illusion** is a misperception of an actual stimulus (e.g., the appearance of wavy lines rising off a hot road), and is not necessarily pathological. Hallucinations that occur only upon awakening (hypnopompic) or upon falling asleep (hypnogogic) are common human experiences and are typically not pathological.

- **Auditory hallucinations** (AH) are the most common type of hallucinations found in psychiatric disorders. Ask the patient, "Have you heard voices or other sounds when no one was around?" If the patient responds affirmatively, ask the content, with particular attention to **command AH**, i.e., voices that tell the patient what to do; hearing commands to hurt oneself or others constitutes a psychiatric emergency. AH may also be derogatory or insulting or provide a running commentary on the patient's activities. The patient may have multiple voices, including in conversation with each other. All of these are cardinal symptoms of schizophrenia, but may be present in other psychotic disorders or in mood disorders with psychotic features.
- **Visual hallucinations** (VH) can include people, shapes, colors, or characters of a religious nature (e.g., the devil). Ask the patient, "Do you see things that other people don't see?" VH are most often seen in dementia, delirium, and substance intoxication or withdrawal, but can also be present in psychotic disorders and mood disorders with psychotic features.
- Less common hallucinations include tactile hallucinations (e.g., the feeling of "bugs crawling" in alcohol withdrawal syndrome) and olfactory hallucinations (e.g., the smell of burning in temporal lobe epilepsy). Gustatory hallucinations are rare.

While hallucinations are typically associated with psychosis, they can be found in a wide range of mood disorders and dementia.

4. Delusions
A **delusion** is a fixed false belief that cannot be explained on the basis of the patient's cultural or spiritual background. A delusion can be held at various intensities, ranging from the patient having some doubts about the belief to adamantly clinging to the belief despite abundant evidence to the contrary. For example, a patient with the paranoid belief that others are conspiring against him may view someone's attempts to convince him otherwise as further evidence of a conspiracy.

- **Persecutory and paranoid delusions** include the beliefs that others are conspiring against, spying on, or otherwise attempting to harm the patient. Ask the patient, "Do you believe that people are trying to harm you?" Such delusions may be vague or may be part of complex delusional systems. These delusions are

most common in schizophrenia and other psychotic disorders, but can also present with major depressive disorder with psychotic features and in dementia.
- To determine if a patient has **grandiose delusions**, ask, “Do you believe you have any special powers or abilities?” Patients with schizophrenia or who are manic may have grandiose delusions.
- A **religious delusion** is a preoccupation with religious matters, e.g., the belief that one is possessed by the devil. To be a religious delusion, the belief must be outside the range of beliefs considered normal for the patient’s cultural and spiritual background.
- A **somatic delusion** is the belief that one’s body is diseased or abnormal despite ample evidence to the contrary. The beliefs may be bizarre, e.g., “I’m rotting on the inside” or “my brain is missing” or “I have a microchip in my brain.”

Schizophrenia is associated with a number of specific delusions, including:

- **idea of reference**: the belief that remarks, newspapers, radio/TV/internet, or other events refer specifically to the patient or are intended for the patient; e.g., “Do you hear those sirens? They’re coming to get me!”
- **thought broadcasting**: the belief that one’s thoughts are being broadcast for others to hear
- **thought insertion** and **withdrawal**: the belief that thoughts are being inserted into one’s mind or that that thoughts are being withdrawn from one’s mind
- **delusion of passivity**: the belief that one’s thoughts or actions are being controlled by someone else or something else

Delusions can be **mood-congruent** (e.g., a severely depressed patient who has persecutory delusions or a manic patient who has grandiose delusions) or **mood-incongruent** (typically seen in schizophrenia).

G. Cognition

This includes a formal assessment of alertness, orientation, attention, memory, and language. Instruments such as the St. Louis University Memory Screen (SLUMS), Montreal Cognitive Assessment (MoCA), Clock-Drawing Test and Animal-Naming Test are most often used.

H. Insight and Judgment

Insight is the patient’s degree of awareness and understanding about her/his situation, including having a psychiatric disorder. This may be apparent from the psychiatric interview, or can be directly assessed by asking, “Do you think you have a problem?” or “Do you believe you are ill?” or “Do you think you need treatment?” Lack of insight is common in psychotic disorders, dementia, delirium and severe mood disorders.

Judgment is insight in action, that is, it includes how a patient acts in response to her/his situation or in particular social situations. You can assess judgment best through careful attention to the patient’s history. For example, a suicide attempt or excessive alcohol use despite functional consequences both reflect poor judgment.

V. Rating Scales

Psychiatric rating scales provide us a way to quantify cognitions, emotions, and behaviors for the purposes of screening, diagnosis, or monitoring response to treatment. Rating scales are also critical in clinical research in psychiatry. Examples of commonly used rating scales include the Patient Health Questionnaire (PHQ-9) for depression screening, General Anxiety Disorders Assessment (GAD-7) for anxiety screening, and the St. Louis University Mental Status Examination (SLUMS) for cognitive assessment.

VI. Differential Diagnosis

Through the use of the psychiatric interview, the mental status examination, rating scales, physical examination, and laboratory and other diagnostic studies, the clinician is able to ascertain the presence or absence of major categories of mental illness. These categories include depression, mania, anxiety, psychosis, substance-related disorders, personality disorders and cognitive disorders (dementia and delirium).

Medical conditions and the use of substances may present as psychiatric conditions. Thus, an important purpose of psychiatric assessment is identifying potential medical or substance-related etiologies.

For example, a patient presenting with depressive symptoms could have any of the following diagnoses:

1. **psychiatric:** major depressive disorder, bipolar disorder, adjustment disorder, bereavement
2. **other medical:** hypothyroidism, cancer, congestive heart failure, Addison's disease
3. **substance-related:** alcohol use disorder, stimulant withdrawal, use of steroid medications

VII. Biopsychosocial Formulation

The **biopsychosocial model** postulates illness arises from a complex interplay among biological, psychological, and social factors.

- "Biological" refers to the anatomical, molecular, and genetic substrates of disease.
- "Psychological" refers to personality traits, methods of coping with stress, perception of relationships with others, meaning of illness, and the internal experience of emotion.
- "Social" refers to cultural, environmental, and spiritual influences.

While the biopsychosocial model does not necessarily help us diagnose or treat a urinary tract infection due to *E. coli* (a simpler, biomedical model will suffice), the model is helpful for understanding more complex conditions such as psychiatric disorders.

The DSM also includes a description of **cultural formulation**, which "clarifies key aspects of the presenting clinical problem from the point of view of the individual and other members of the individual's social network (i.e., family, friends, or others involved in current problem). This includes the problem's meaning, potential sources of help, and expectations for services."

A psychiatric assessment typically includes both the DSM diagnoses and a biopsychosocial formulation. The formulation describes how the patient's illness arose in terms of biological, psychological, and social factors. These factors may be predisposing (they put the patient at risk of developing illness), precipitating (they are the proximal cause of the illness or its exacerbation), perpetuating (they prevent the illness from resolving), or protective (they have decreased the severity of illness or are preventing relapse). Both the DSM diagnoses and the biopsychosocial formulation lead to the development of a treatment plan.